



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,591	03/29/2004	Efraim Atad	27615	9479
67801 7590 09/22/2008 MARTIN D. MOYNIHAN d/b/a PRTSI, INC. P.O. BOX 16446 ARLINGTON, VA 22215				
EXAMINER RYAN, PATRICK A				
ART UNIT 2623		PAPER NUMBER		
MAIL DATE 09/22/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/810,591

Applicant(s)

ATAD ET AL.

Examiner

PATRICK A. RYAN

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/02)
Paper No(s)/Mail Date 09/11/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is made in response to Amendment after Non-Final Rejection of December 20, 2007 ("Response") filed June 6, 2008. Applicant has amended Claims 1 and 10; no claims have been canceled; and no claims have been added. As amended, Claims 1 through 14 are presented for examination.

Miscellaneous

2. Applicant is advised that the Examiner of record for this application has changed.

Response to Arguments

3. Applicant's arguments, see Response Pages 5 and 6, filed June 6, 2008, with respect to the rejection(s) of claim(s) 1 and 10 under 35 USC 102(e) as being anticipated by Connelly, (US PAT 7,020,893) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Perlman, (US PGPUB 2004/0110463 A1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 through 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connelly, United States Patent (7,020,893) in view of Perlman, United States Patent Application Publication (2004/0110463 A1).

6. In regards to Claim 1, Connelly teaches a head end installation (Fig. 4A Broadcast Operations Center 126A, as described in Col. 7 Lines 1-67) for multi-channel video feed broadcasting (Col.7, lines 62-63 describing Satellite 130 functioning as a multi-channel data transponder) to a plurality of user external TV receiver installations (Fig.4A, Client Systems 105A, 107A, 109A, which receive broadcast data by way of Antennas 134, 136, and 138 respectively, as described in Col. 7 Lines 50-67), comprising a transmitter for transmitting said multi-channel video feed to said user installations (Fig.4A, Ground Station 132 transmits uplink signal 128 via satellite 130 to clients 105A, 107A, and 109A; with further reference to Network 113 of Fig. 1C, as described in Col. 5 Lines 14-34), and a router for receiving a return link from a core IP network and regional terrestrial networks (Fig. 1C, showing two-way communication, by way of Network 113, between the Server 103 and Client installations 105, 107, and 109, as described in Col. 5 Line 14—Col. 6 Line 5; with further reference to back channel communications facilitated by Database Server 147 of Fig. 4A, as described in Col. 22

Line 11—Col. 23 Line 10. In addition, Network 113 can provide back channel communications over networks, such as the Internet, a wide area network, a local area network, and an intranet, as disclosed in Col. 5 Lines 14-34). Connelly further teaches that back channel data transmission with the headend server can be communicated through indirect links, such as broadcasted wireless signals, as disclosed in Col. 4 Line 59—Col. 5 Line 13 regarding Fig. 1B.

Connelly does not explicitly teach said regional terrestrial networks being wireless networks having relay nodes, said external user TV receiver installations forming said relay nodes of said terrestrial networks, said return link allowing user interactions to be relayed via said user installations and thereby supported by said head end installation.

In a similar field of invention Perlman teaches an antenna assembly and method of operation that includes a wireless communication transceiver operating to transmit and receive video and data information within a surrounding range (Abstract). With reference to Fig. 1, Transceiver 71 (as part of Units 18 and 28) facilitates network connectivity to devices located within a surrounding range by way of Wireless Signals 17 and 28 from Houses 14 and 34 respectfully, as described in Paragraphs [0028-0032]. Perlman further teaches “transceiver within unit 28 may function as a repeater or hub for house-to-house transmission... to relay the media content and interactive services provided at home 14 to users at home 36 and elsewhere” so that “...content and two-way data services may be distributed to end users located at considerable

distances from the original service connection source", as disclosed in Paragraph [0032].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the headend broadcast installation accommodating wireless return link communications, as taught by Connelly, with a wireless transceiver functioning as a relay node in a terrestrial network, as taught by Perlman in order to extend the two-way data services coverage area to end users located great distances from the content source (as Perlman discusses in Paragraph [0032]).

7. In regards to Claim 2, the combination of Connelly and Perlman teach the head end installation of Claim 1, wherein said transmitter is adapted for transmitting via a satellite relay (as Connelly shows in Fig.4A, Broadcast Server 103A, as part of Broadcast Operations Center 126A, transmits via ground station 132 and satellite relay 130, as described in Col. 7 Lines 50-65).

8. In regards to Claim 3, the combination of Connelly and Perlman teach the head end installation of Claim 1, wherein said transmitter is adapted for terrestrial transmission (as Connelly shows in Fig. 1C, showing terrestrial network 113 communication link with Server 103, as described in Col. 5 Lines 14-34).

9. In regards to Claim 4, the combination of Connelly and Perlman teach the head end installation of Claim 1, comprising an interactive server for managing interactive services to a given user (as Connelly shows in Fig. 1C, two-way communication for interactive services between client 105 and server 103, as described in Col.7, lines 1-

29; with further reference to functions of broadcast operations center, as described in Col. 22 Line 11—Col. 23 Line 10).

10. In regards to Claim 5, the combination of Connelly and Perlman teach the head end installation of Claim 1, wherein said router is further adapted for sending a forward link via said core IP network and regional terrestrial networks (as Connelly shows in Fig. 1C, two-way communication via Network 113 the Server 103 and Client installations 105, 107, and 109, as described in Col. 5 Line 14—Col. 6 Line 5; with further reference to back channel communications facilitated by Database Server 147 of Fig. 4A, as described in Col. 22 Line 11—Col. 23 Line 10).

11. In regards to Claim 6, the combination of Connelly and Perlman teach the head end installation of Claim 5, comprising WAN management functionality for managing said return link and said forward link over a wide area network (WAN) transmission medium (as Connelly teaches in Fig.1C showing Network 113, which can support two-way communications over a Wide Area Network, as described in Col. 5 lines 18-22).

12. In regards to Claim 7, the combination of Connelly and Perlman teach the head end installation of Claim 6, wherein said WAN is provided over a cable infrastructure (with reference to Fig. 2, Connelly teaches Communications Signal 325 that can connect the Client to the Network 113 by wire, as described in Col. 5 Lines 35-60; with further reference to Col.6, lines 2-5, disclosing wires, cables, infrastructure).

13. In regards to Claim 8, the combination of Connelly and Perlman teach the head end installation of Claim 1, comprising an interactive server for managing interactive services to a given user, wherein said router is associated with said interactive server to

modify data sent to an individual user in accordance with data received from said individual user via said return link (as taught by Connelly Fig. 1C, shows two-way communication for interactive services between client 105 and server 103; with further reference to back channel communications facilitated by Database Server 147 as part of Broadcast Operations Center 126A of Fig. 4A, as described in Col. 22 Line 11—Col. 23 Line 10. This process is further demonstrated in Steps 304, 316, and 318 of Fig. 3, as described in Col. 9 Line 15—Col. 10 Line 49).

14. In regards to Claim 9, the combination of Connelly and Perlman teach the head end installation of Claim 5, comprising an interactive server for managing interactive services to a given user, wherein said router is associated with said interactive server to modify data sent in said forward link to an individual user in accordance with data received from said individual user via said return link (as Connelly shows in Fig. 1C, two-way communication for interactive services between client 105 and server 103, as described in Col.7, lines 1-29; with further reference to functions of broadcast operations center, as described in Col. 22 Line 11—Col. 23 Line 10. Connelly further teaches this process in Steps 304, 316, and 318 of Fig. 3, as described in Col. 9 Line 15—Col. 10 Line 49).

15. In regards to Claim 10, Connelly teaches a method of operation of a head end installation for multi-channel video feed broadcasting to a plurality of user external TV receiver installations (Fig. 4A Broadcast Operations Center 126A in communication with Client devices 105, 107, and 109, as described in Col. 7 Lines 1-67. In addition, the

system of Fig. 4A operates in accordance with the a method of providing interactive services shown in Fig. 3), comprising: transmitting said multi-channel video feed to said user installations (Fig.4A, Ground Station 132 transmits uplink signal 128 via satellite 130 to clients 105A, 107A, and 109A; with further reference to Network 113 of Fig. 1C, as described in Col. 5 Lines 14-34); receiving a return link from a core IP network and regional terrestrial networks (Fig. 1C, showing two-way communication via Network 113 the Server 103 and Client installations 105, 107, and 109, as described in Col. 5 Line 14—Col. 6 Line 5; with further reference to back channel communications facilitated by Database Server 147 of Fig. 4A, as described in Col. 22 Line 11—Col. 23 Line 10. In addition, Network 113 can provide back channel communications over networks, such as the Internet, a wide area network, a local area network, and an intranet, as disclosed in Col. 5 Lines 14-34). Connelly further teaches that back channel data transmission with the headend server can be communicated through indirect links, such as broadcasted wireless signals, as disclosed in Col. 4 Line 59—Col. 5 Line 13 regarding Fig. 1B.

Connelly does not explicitly teach said regional terrestrial networks being wireless networks having relay nodes and said user external TV receiver installations forming said relay nodes of said terrestrial networks.

In a similar field of invention Perlman teaches an antenna assembly and method of operation that includes a wireless communication transceiver operating to transmit and receive video and data information within a surrounding range (Abstract). With reference to Fig. 1, Transceiver 71 (as part of Units 18 and 28) facilitates network

connectivity to devices located within a surrounding range by way of Wireless Signals 17 and 28 from Houses 14 and 34 respectfully, as described in Paragraphs [0028-0032]. Perlman further teaches "transceiver within unit 28 may function as a repeater or hub for house-to-house transmission... to relay the media content and interactive services provided at home 14 to users at home 36 and elsewhere" so that "...content and two-way data services may be distributed to end users located at considerable distances from the original service connection source", as disclosed in Paragraph [0032].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the headend broadcast installation accommodating wireless return link communications, as taught by Connelly, with a wireless transceiver functioning as a relay node in a terrestrial network, as taught by Perlman in order to extend the two-way data services coverage area to end users located great distances from the content source (as Perlman discusses in Paragraph [0032]).

16. In regards to Claim 11, the combination of Connelly and Perlman teach, the head end operation method of Claim 10, comprising using said received user interactions to manage interactive services to a given user (Connelly teaches Fig. 1C, showing interactive services between server and a given user, as described in Col.7, lines 14-29. In addition, Connelly demonstrates a method of providing interactive services to Clients in the broadcast network, as shown in Fig. 3 and described in Col. 7 Lines 30-49).

17. In regards to Claim 12, the combination of Connelly and Perlman teach, the head end operation method of Claim 10, further comprising sending a forward link via said

core IP network and regional terrestrial networks (as Connelly shows in Fig. 1C, two-way communication via Network 113 the Server 103 and Client installations 105, 107, and 109, as described in Col. 5 Line 14—Col. 6 Line 5; with further reference to back channel communications facilitated by Database Server 147 of Fig. 4A, as described in Col. 22 Line 11—Col. 23 Line 10).

18. In regards to Claim 13, the combination of Connelly and Perlman teach, the head end operation method of Claim 10, comprising managing interactive services to a given user (as Connelly shows in Fig. 1C, two-way communication for interactive services between client 105 and server 103, as described in Col.7, lines 1-29; with further reference to functions of broadcast operations center, as described in Col. 22 Line 11—Col. 23 Line 10), by modifying data sent to an individual user in accordance with data received from said individual user via said return link (as Connelly discloses in Col. 7, lines 14-29; with further reference to back channel communications facilitated by Database Server 147 as part of Broadcast Operations Center 126A of Fig. 4A, as described in Col. 22 Line 11—Col. 23 Line 10. This process is further demonstrated in Steps 304, 316, and 318 of Fig. 3, as described in Col. 9 Line 15—Col. 10 Line 49).

19. In regards to Claim 14, the combination of Connelly and Perlman teach, the head end operation method of Claim 13, comprising managing interactive services to a given user (as Connelly shows in Fig. 1C, two-way communication for interactive services between client 105 and server 103, as described in Col.7, lines 1-29; with further reference to functions of broadcast operations center, as described in Col. 22 Line 11—Col. 23 Line 10), by modifying data sent in said forward link to an individual user in

accordance with data received from said individual user via said return link (as Connelly discloses in Col. 7, lines 14-29; with further reference to back channel communications facilitated by Database Server 147 as part of Broadcast Operations Center 126A of Fig. 4A, as described in Col. 22 Line 11—Col. 23 Line 10. This process is further demonstrated in Steps 304, 316, and 318 of Fig. 3, as described in Col. 9 Line 15—Col. 10 Line 49).

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. RYAN whose telephone number is (571)270-5086. The examiner can normally be reached on Mon to Thur, 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. A. R./
Examiner, Art Unit 2623
Tuesday, September 23, 2008

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2623